SAPC-4[illegible]
Copy 2 of 9

15 March 1956

MEMORANDUM FOR: Project Director of Operations
Project Contracting Officer

THROUGH : Deputy Project Director

SUBJECT : Number of A-1 and A-2 Cameras for Detachment A

REFERENCE : Memorandum for Mr. Bissell, dated 13 March 56, from Dir of Ops, "Number of A-1 Cameras for [redacted] (SAPC-4230) STAT

1. I concur in the referenced memorandum which recommends that if feasible five A-1 and five A-2 configurations move overseas with [redacted] STAT [redacted] on the occasion of its initial deployment. STAT

2. Feasibility (in the sense in which I have used the word here) would appear to me to depend upon the number of configurations that would be left at Watertown for shake-down of the cameras, pilot training, and continued evaluation of both film and equipment. Accordingly, I would appreciate if the Contracting Officer would (a) determine how many of each of these configurations will be delivered by 1 May, and (b) obtain the supplier's views as to the state of the equipment by that time and the number that could feasibly (in the above sense) be sent overseas. I would appreciate a report (oral) of the results.

3. Unless these inquiries reveal an objection to the Director of Operations' recommendation, the Base Commander at Watertown and the Commander of [redacted] should be notified that five of each of the configurations will be shipped. STAT

RICHARD M. BISSELL, JR.
Project Director

[redacted] STAT

RMB:djm
1-Dir of Ops
2-Project Contracting Offr. w/cy 1 Ref.
3-Director of Admin.
4-Director of Materiel
5-[redacted] TU) STAT
6-RMB Chrono
7-Chrono 8-Reading
9 - Dep Proj Dir w/cy 2 Ref.

P R O P O S A L

Long Focal Length System "C"

March 14, 1956

LONG FOCAL LENGTH SYSTEM "C"

We have now completed a review of our current costs and an estimate of the costs to complete the "C" system optical design, and the manufacture of all optical parts. On September 13, 1955, we stopped all work on the optical portion of this instrument until a decision could be reached as to how we should best proceed. Previous to this date, we had spent $6,424.91 in engineering design and overhead, and had ordered $26,000 worth of glass and fluorite.

On October 1, a meeting of the committee concluded that we should return to 180" focal length, if possible. This increase in focal length must be made at no loss of speed for the effectiveness of the camera is already limited by the availability of light. This, in turn, requires considerably larger pieces of glass. The pieces of fluorite were already delivered and paid for at a cost of $3,498.60. Some of the smaller pieces of LAK-9 glass had also been delivered by Schott previous to the stop date at a cost of $3,046.21. Thus, the cost of the initial optical design activity on the first design was $12,969.72.

Our new cost estimate appears in the attached sheet. It will be noted that an increase appears in two items; the glass will cost $20,440 more for the new design than for the old, and we are asking for $4,500 more in optical tooling. Part of this increase in tooling cost is in the cost of larger tools and test plates for the larger lenses, and part is in test tooling arising from the fact that we have a much better understanding of what it will take in the way of testing to assemble these lenses and mirrors into a satisfactory system. Conversely, our present knowledge of the system permits us to reduce our estimate for engineering by a bit over $10,000, recovering part of the extra glass cost. Some of this is due to our having put in the $6,000 worth of engineering on the previous system.

The new estimate does not contemplate spares other than a sixth set of optics complete, or instruction manuals separately for the optics. Alignment, focusing and maintenance instructions specifically for the optics are now felt to be best included in the general camera instruction manual rather than in a separate one.

We suggest that the contract be amended as shown on the following page.

Delete Item 46		
Add Item 46-a	Provide engineering services to develop the mechanical design for the 180" f/13.8 optical system as described in Projector Division Technical Specification No. 9, dated April 18, 1955.	$ 21,361.
	Delivery - April 1, 1956	
Delete Item 47		
Add Item 47-a	Construct, test and deliver five (5) 180" f/13.8 optical systems as designed under Item 46-a @ $19,080	95,400.
	Delivery - One (1) July 1, 1956 One (1) September 1, 1956 Two (2) November 1, 1956 One (1) December 1, 1956	
Delete Item 48		
Add Item 48-a	Construct, test and deliver parts for one system as designed under Item 46-a. Minor assemblies are to be delivered assembled and all parts are to be packaged for domestic shipment and storage.	13,069.
	Delivery - One (1) December 1, 1956	
Delete Item 49		
Delete Item 50		

3-14-56

ITEMS	NEW COSTS (WITHOUT G&A)	NEW SELLING PRICE	OLD SELLING PRICE	(New vs. Old) DIFFERENCE
46-46a	$ 16,878	21,361 ✓	30,724 ✓	- 9,363
47-47a	75,380	95,400 ✓	55,092 ✓	+ 40,308
48-48a	10,326	13,069 ✓	6,328 ✓	+ 6,741 ✓
	$102,584	$129,830	$92,144	$ 37,686 ✓
49		-0-	5,108 ✓	- 5,108
50		-0-	1,123	- 1,123 ✓
		$129,830	$98,375	$ 31,455 ✓

47049
9363
37686

6231

16878 × 1.13 = 2 5 0 6 3 4 + 16878 = 19072.14 × 1.12 = 3 8 1 4 4 2 8 + 19072.14 = 21360.1968

75380 × 1.13 = 226140 + 75380 = 85179.40 × 1.12 = 170 3 5 8 0 + 85179.40 = 95400.9280

10326 × 1.13 = 30978 + 10326 + 10326 = 11668.38 × 1.12 = 23 3 3 6 7 6 + 11668.38 = 13068.5856

28084.8
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Refs

3-14-56

To September 13 we have spent on SPO 24884

Engineering	6,424.91
Glass	6,544.81
	$12,969.72

To finish job per JGB design of December 20 compared to original quote.

	Costs without G&A	
	Original Quote May 16, 1955	Present Estimate Sept. 13 to completion
Engineering & Overhead	$ 29,332	$ 18,082
Optical Labor & Overhead	6,118	4,988
Tooling	4,000	8,500
Purchases & Sub Contract	12,280	11,605
Glass & Fluorite	26,000	46,440
	$ 77,730	$ 89,614

(1) $1560 Engineering cost to February 1 + $8875 + $7629 from 3238-12
(2) Includes optical, mechanical and test tooling

Costs to September 13	12,970
Total costs of "C" Project	$102,584
Target Price of PE Items on "C" Project (New target costs + 13% G&A & 12% Profit)	$129,830

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